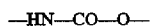


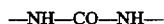
7

- a) ether groups contained in a polyether and constituting 25 to 90 parts by weight per 100 parts by weight of polyaddition product;  
 b) urethane groups of the formula



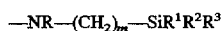
at a content of 0.5 to 10 parts by weight per 100 parts by weight of polyaddition product;

- c) urea groups of the formula



at a content of 0.5 to 10 parts by weight per 100 parts by weight of polyaddition product;

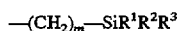
- d) silanes that are alkoxyisilyl groups located on both ends of the predominantly linear polyaddition product and have the formula



in which

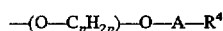
m is 3,

R is hydrogen or a group of the formula:



where R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are methyl, ethyl, C<sub>1</sub> to C<sub>4</sub> alkoxy or —(O—C<sub>p</sub>H<sub>2p</sub>)<sub>q</sub>—O—A—R<sup>4</sup>, and at least one of

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> is



in which

p is 3;

q is from 1 to 100;

A is a single bond and

R<sup>4</sup> is alkyl, aralkyl, vinyl, vinylcarbonyl, alpha-methylvinylcarbonyl or beta-methylvinylcarbonyl.

2. The plastic according to claim 1, where at least one of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> in NR—(CH<sub>2</sub>)<sub>m</sub>—SiR<sup>1</sup>R<sup>2</sup>R<sup>3</sup> is methyl, ethyl or methoxy.

3. The plastic according to claim 1 or 2 defined further as comprising at least one mono- or polyfunctional (meth)acrylate curable by means of free radicals and at least one catalyst for hot polymerization, cold polymerization or photopolymerization of the (meth)acrylate.

4. The plastic of claim 1 where the polyether constitutes 50 to 80 parts by weight per 100 parts by weight of polyaddition product.

5. The plastic of claim 1 where the urethane groups constitute 1 to 8 parts by weight per 100 parts by weight of polyaddition product.

6. The plastic of claim 1 where the urea groups constitute 1 to 8 parts by weight per 100 parts by weight of polyaddition product.

7. The plastic of claim 1 where q is from 2 to 4.

8. The plastic of claim 1 defined further as comprising a catalyst for silane condensation.

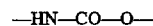
9. An impression, duplicate or model comprising the plastic of claim 1.

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10. A method of preparing an impression, duplicate or model, the method comprising preparing a plastic with a low tendency to shrink after complete curing, the plastic having at least one polyaddition product which contains alkoxyisilyl and aliphatically or cycloaliphatically bonded polyether and urethane groups and has a predominantly linear molecular structure and a number average molecular weight of from 800 to 20,000, the polyaddition product having:

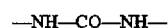
- a) ether groups contained in a polyether and constituting 25 to 90 parts by weight per 100 parts by weight of polyaddition product;

- b) urethane groups of the formula



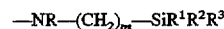
at a content of 0.5 to 10 parts by weight per 100 parts by weight of polyaddition product;

- c) urea groups of the formula



at a content of 0.5 to 10 parts by weight per 100 parts by weight of polyaddition product;

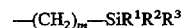
- d) silanes that are alkoxyisilyl groups located on both ends of the predominantly linear polyaddition product and have the formula



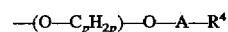
in which

m is 3,

R is hydrogen or a group of the formula:



where R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are methyl, ethyl, C<sub>1</sub> to C<sub>4</sub> alkoxy or —(O—C<sub>p</sub>H<sub>2p</sub>)<sub>q</sub>—O—A—R<sup>4</sup>, and at least one of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> is



in which

p is from 2 to 4;

q is from 1 to 100;

A is a single bond and

R<sup>4</sup> is alkyl, aralkyl, vinyl, vinylcarbonyl, alpha-methylvinylcarbonyl or beta-methylvinylcarbonyl;

and preparing an impression, duplicate or model from the plastic.

11. The method according to claim 10, characterized in that at least one of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> of —NR—(CH<sub>2</sub>)<sub>m</sub>—SiR<sup>1</sup>R<sup>2</sup>R<sup>3</sup> is methyl, ethyl or methoxy.

12. The method according to claim 10 or 11 wherein the plastic comprises at least one mono- or polyfunctional (meth)acrylate curable by means of free radicals and at least one catalyst for hot polymerization, cold polymerization or photopolymerization, as polymer compositions which cure in several stages.

\* \* \* \* \*